

CLMPTO

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CLAIMS 1-23 (CANCELLED)

Claim 24. (Original) A circuit for monitoring a plurality of capacitor segments, the circuit comprising:

a charge monitoring circuit coupled to each capacitor segment;

a coupling circuit for selectively coupling and decoupling one of said capacitor segments from among a plurality of states; and

a control circuit for sequentially controlling said coupling circuit of each of said capacitor segments so as to disconnect a failed capacitor segment while said other capacitor segments are monitored.

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Claim 25. (Original) The circuit of claim 24, wherein each of said capacitor segments comprises a plurality of plates and wherein said coupling circuit comprises at least one n-channel transistor connected between said control circuit and a plate of said capacitor segment.

Claim 26. (Original) The circuit of claim 25, further comprising a fuse circuit provided between said capacitor segment and said at least one n-channel transistor.

Claim 27. (Original) The circuit of claim 24, wherein each of said capacitor segments comprises a plurality of plates and wherein said coupling circuit comprises at least one p-channel transistor connected between said control circuit and a plate of said capacitor segment, the other plate of the capacitor segment being connected to a ground potential.

Claim 28. (Original) The circuit of claim 27, wherein said coupling circuit further comprises a fuse circuit connected between said control circuit and said at least one p-channel transistor.

Claim 29. (Original) The circuit of claim 24, wherein said charge monitoring circuit outputs a signal based on an amount of current flowing through said capacitor segment when said coupling segment is in a test state.

Claim 30. (Original) The circuit of claim 24, wherein said charge monitoring circuit comprises an integrator circuit.

Claim 31. (Original) The circuit of claim 24, wherein the control circuit controls the coupling circuit such that the capacitor segment is disconnected only after failing at least twice.

Claim 32. (Original) A circuit for monitoring a plurality of capacitor segments, each capacitor segment comprising a first low dielectric insulator layer, a low resistance conductor formed into at least two interdigitized patterns on a surface of said first low dielectric insulator layer and high dielectric material provided between said two interdigitized patterns, the circuit comprising:

- a charge monitoring circuit coupled to each of said capacitor segments;
- a coupling circuit connected to each of said capacitor segments, said coupling circuit selectively coupling and decoupling each capacitor segment to one of a disabled state, an enabled state and a testing state; and

- a control circuit connected to said coupling circuit, said control circuit controlling said coupling circuit so as to place said coupling circuit of a failed capacitor in the disabled state while monitoring remaining ones of said plurality of capacitor segments.

Claim 33. (Original) The circuit of claim 32, wherein each of said capacitor segments comprises a plurality of plates and wherein said coupling circuit comprises at least one n-channel transistor connected between said control circuit and a plate of said capacitor segment.

Claim 34. (Original) The circuit of claim 33, further comprising a fuse circuit provided between said capacitor segment and said at least one n-channel transistor.

Claim 35. (Original) The circuit of claim 32, wherein each of said capacitor segments comprises a plurality of plates and wherein said coupling circuit comprises at least one p-channel transistor connected between said control circuit and a plate of said capacitor segment, the other plate of said capacitor segment being connected to a ground potential.

Claim 36. (Original) The circuit of claim 35, wherein the coupling circuit further comprises a fuse circuit connected between said control circuit and said at least one p-channel transistor.

Claim 37. (Original) The circuit of claim 32, wherein said charge monitoring circuit outputs a signal based on an amount of current flowing through said capacitor segment when said coupling segment is in the testing state.

Claim 38. (Original) The circuit of claim 32, wherein said charge monitoring circuit comprises an integrator circuit.

Claim 39. (Original) The circuit of claim 23, wherein the control circuit controls the coupling circuit such that the failed capacitor segment is placed in the disabled state only after failing at least twice in the testing state.